Form No. 1012 11-29-22 10M W

INSTRUCTIONS
FOR OPERATING THIS
SEWING MACHINE

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INSTRUCTIONS
FOR OPERATING THIS
SEWING MACHINE

To the Learner. A little time given to the study of the instructions, before commencing to use the machine, will be found of great advantage. Any one can learn to use this Sewing Machine. It is simple in construction, and requires so little change for any kind of work, that its operation can be easily understood.

Attention to the instructions here given, and a little practice, will soon enable the learner to successfully operate the Machine.

Do not attempt to use the Attachments until you can manage the Machine with ease on plain sewing.

The cause of a machine not working properly will be found, ninety-nine times out of a hundred, in the improper setting of the needle, the use of poor thread, or a size too large for the needle, or in the wrong adjustment of the tensions.

If at any time the Machine fails to perform its work properly refer to the instruction book to ascertain the cause. This will help you out of the trouble if you carefully follow the directions.

For example, if your machine misses stitches, you turn to the index: (inside front cover), "Missing Stitches." On page 8 you read, "Should there at any time be skipped or long stitches at intervals, it is owing to the needle being set too low, or its having become bent away from the shuttle, or its being too small for the thread in use, etc., etc." You will therefore be able to easily remedy the trouble. We advise a careful perusal of "General Remarks" below.

General Remarks. The presser foot must never be let down on the feed, unless when you are sewing and have cloth under it. When the shuttle is in, the machine must not be run with either of the shuttle slides out or partly open, as the shuttle is liable to get out of position and break some portion of the machinery.

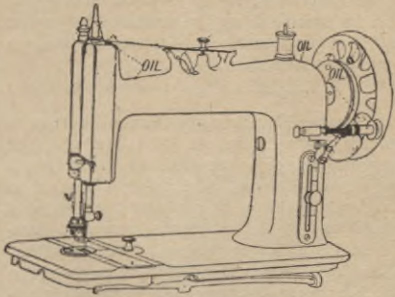
We caution purchasers to see that the manufacturers' plate number of the Machine is plain and in good condition. If defaced or obliterated, it is sure evidence of fraud, and we will not warrant, or in any way be responsible for such machines. To avoid imposition buy only of us, or authorized dealers.

Do not run the machine backward or with both threads in, without sewing.

Do not use a dull or bent needle, or draw the work faster than the feed will naturally carry it, as needles are frequently broken by failing to observe the latter caution.

When ordering parts always give the plate number of machine.

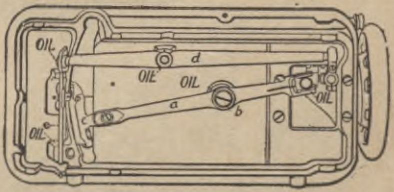
OIL. Poor oil is dearer than good oil, because it ruins the parts of the machine and does not last as long. It makes the machine run hard; corrodes and eats into the bearings, making them rough and hard to operate. It clogs and fills up the oil holes, so that, unless the operator carefully and laboriously picks out the holes, the oil cannot penetrate to the bearings and soon the machine begins to run hard. Be sure you get the best.



Oil the Upper Parts as Here Indicated.

The Best Oil is the Cheapest.

Oil the Under Parts as Indicated.



To Oil Machine. Oil the centers on which the driving wheel of stand turns, and where the foot piece rests on the rod. After the machine has been oiled, run it (with presser-foot up and shuttle out) for a minute, and then wipe off the superfluous oil. If the machine runs hard after standing idle for sometime, use a little kerosene oil in the usual way and run rapidly, then wipe clean, and oil with the best prepared oil. Oil the bobbin-winder in places where there is any friction.

Recollect, that every part where there is any friction should be carefully oiled. Only a very small quantity of oil should be used at a time.

The Treadle.

Familiarity with the motion of the treadle is first to be learned, practice is necessary in order to give a steady and uniform revolution to the driving wheel. The presser-foot, which holds the work in place on the feed, should be raised to prevent the feed from injury by contact with it. Place the feet on the treadle with instep directly over the rod upon which the treadle rests. Start the machine by placing the right hand upon the top of balance wheel and revolving it towards you, taking care to give it impetus enough; keep up a regular movement by pressing alternately with the heel and ball of the foot with equal effect. This should be practiced until a uniform motion of the wheel is obtained. Do not attempt to sew until you are familiar with the treadle movement.

To Adjust Stand.

Every Sewing Machine of our manufacture is perfectly adjusted in all its parts when it leaves our factory. Sometimes in transit, if going a long distance and being subjected to innumerable changes, some of the parts of the Treadle and Stand are liable to become loosened, causing unnecessary noise when the machine is in operation. To avoid this, we illustrate below the different parts of the Stand to enable the inexperienced operator to properly adjust any part that may have become loosened.

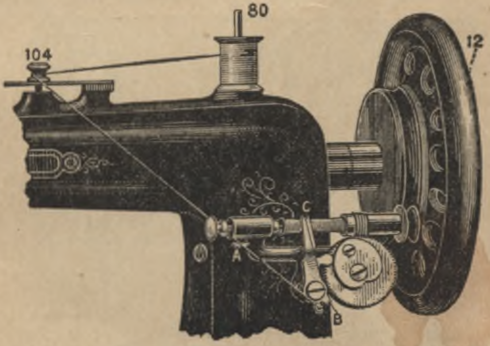
Should the Foot Plate (K) have any play from right to left, it needs adjusting; unscrew the Cone Set Screw (O) and adjust the Cone (N) so that the Foot Plate will work evenly, taking care not to set the Cone too tightly against the Foot Plate to cause it to operate hard; if adjusted properly, it should work with but the slightest pressure. Should the Drive Wheel (E) not run true or evenly, loosen the Drive Wheel Crank Plug Screw (H) and adjust the Plug so the Drive Wheel (E) has no play, but will run evenly, then screw tight.

Should the Pitman [P] work too loose on Drive Wheel Crank, or on Pitman Stud [Q,] tighten with screwdriver the Pitman Screws [T.]

The Belt. The belt that communicates motion to the machine should always be tight enough to move it without slipping. Should it become too loose, cut it to the desired length, observing to make a new hole at right angles with the grain side of the leather, that you may obtain its full strength.

To put the belt on, place it in the groove of the Balance Wheel and hold it in the notch of the drive wheel, then turn the balance wheel toward you.

To Set the Needle. First loosen the screw that clamps the needle and push to the left sufficient to allow the shank to enter; allow the needle bar to rest at its highest point; then take the needle [with the flat side of shank towards the needle bar] between the thumb and finger of the left hand, and insert the needle into the groove [as far up as it will go] under the clamp, and screw fast. Observe that the needle passes through the hole in the Throat Plate without touching either side. If it touches, take hold of it near its point, and press it gently in the opposite direction, until it is free.



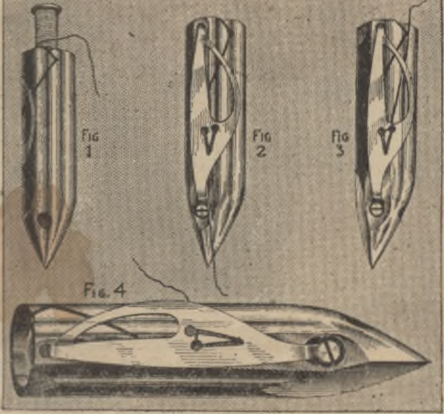
To Wind Bobbin. Unlock the balance wheel with thumb and forefinger of the right hand by drawing the key [12] out, turning it part round [this will prevent the machine from wearing, and save the trouble and annoyance of unthreading it, and removing the work while the bobbin is being filled.

Then swing the bobbin winder until it is in position and presses firmly against the belt. Place the spool of thread to be wound from on the spindle (80) and put the bobbin in bobbin winder. Pass the thread from the spool, once around the tension screw (104) as shown in cut, thence down between the bobbin winder frame and wire guide at (A), then through slot (B) at bottom of thread guide, then into V shaped slot of thread guide at (C). To secure the end of the thread preparatory to winding, place it between the head of the bobbin and its socket at the right hand. Proceed as in sewing. When the bobbin has been filled, swing the winder from the belt and turn back the key (12) until it enters the hole and locks the balance wheel.

Thread Shuttle. Take the shuttle in the left hand, with the point toward you; draw off about two inches of thread from the bobbin, thread running from the upper side, (see Fig. 1); drop the bobbin into the shuttle as far as it will go; then draw the thread into the open slot of shuttle, at the same time putting a little pressure with the finger on the end of bobbin; by drawing the thread toward you it will be forced under the point of shuttle spring, (see Fig. 2); then draw it back until it passes over the point; (see Fig. 3); shuttle is ready for sewing. Fig. 4 shows shuttle properly threaded, ready for sewing.

The tension is regulated by turning the screw in point of shuttle to the right or left; to the right, to give more tension; to the left, to give less tension.

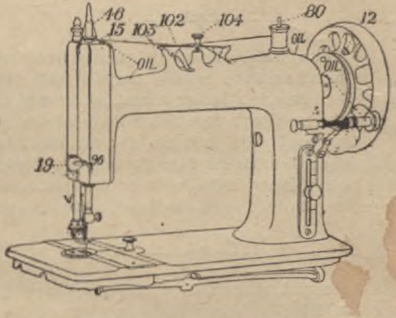
It will not generally be necessary to change the tension of shuttle for ordinary kinds of sewing.



To Place Shuttle. Withdraw the front shuttle slide and place the shuttle in the carrier, point first, toward operator; then close the slide. It is sometimes more convenient to withdraw the back shuttle slide and put the shuttle in its place when the carrier is at the back part of the machine. This is especially the case when some of the attachments are in use.

Lower Thread Breaking. This may be caused by the shuttle being wrongly threaded; the tension being too tight; the bobbin being wound too full, so it will not revolve freely; a rough or sharp place on the edge of the shuttle at the heel; or by failing to keep the shuttle race clean. For sewing heavy goods be careful to have the needle and cotton, (or silk), according to scale. When needle coarser than (1) is used, put in the throat plate with large needle hole, and lengthen the stitch according to thickness of goods.

Threading Machine. Put spool upon spindle (80), then, with the left hand, catch the thread in slot (102) and draw it between the spring and cap (103) toward the needle bar, then under spring eyelet (15), up through slot in needle bar (46), down back of the staple (19); then, with the thumb and forefinger of the left hand, catch the thread in center of staple (19), and draw it toward you around the hook of the take-up; then down through eye of needle from left to right, leaving about four inches of thread free.



Upper Thread Breaking. This may be caused by improper threading of the machine; the upper tension being too tight; the needle being too small for the thread; the needle being set the wrong side out, or set crooked; or, the needle being too large for the hole in the throat plate.

To Regulate Tension. After threading the shuttle, try the tension by drawing the thread toward the blunt end; if it draws tightly, it is right for goods of firm texture; thin soft goods require a loose tension. To obtain more or less tension, put more or less pressure on the shuttle tension spring, as described heretofore. The tension of top thread is adjusted by tension screw 104, turning to the right to tighten, and to the left to slacken it. Care must be taken in regulating the tension of the lower and upper threads. If the tension on either thread is too tight, it will cause the thread to break and the seam will be puckered. If there is not sufficient tension, the thread will not be drawn into the fabric, but will lie in loops on the under side. When both tensions are properly adjusted, both threads are drawn to the centre of the fabric as shown in figure A.

If the shuttle thread is very tight, and the upper thread too loose, the under thread will lie straight as shown in figure B, because there is not sufficient upper tension to draw the under thread in. On the other hand, if the shuttle thread draws off to easily and the upper thread is too tight, the under thread will draw through the fabric and the upper thread will lie straight as shown in figure C.

A B C

This Machine requires less change of tension than any other machine, and it is seldom necessary to change the tension of the under thread. Always regulate the tension by adjusting the upper tension if possible.

Draw Up Shuttle Thread. Take hold of the balance wheel with one hand and the needle thread with the other keeping the latter slack, so as not to spring the needle; move the wheel toward you once around and pull up the needle thread with your hand, to draw the shuttle thread up through the throat plate hole. Then take both threads and pass them under the presser foot, toward the back of the machine.

Missing Stitches. Should there at any time be skipped or long stitches at intervals, it is owing to the needle being set too low, or its having become bent away from the shuttle, or its being too small for the thread in use, and sometimes to the point of the shuttle becoming accidentally blunted. When using very fine needles, and also when stitching heavy work be sure that the points of the needles are perfect.

Ready for Sewing. The machine being fully threaded above and below, and the shuttle thread drawn up, you are ready to commence sewing.

Raise the presser foot by the presser lifter (to the right for heavy work, to the left for hemming and felling), put the work, under, and let the presser foot down upon the work. Avoid pushing or pulling the goods through while stitching. In turning a corner stop the machine without raising the needle more than half way out of the work; raise the presser foot and turn the work in the manner desired, using the needle as a pivot.

Length of Stitch. On the left side of the stitch regulator scale will be found marks of different lengths; from these select the length of stitch you want; then loosen the thumb screw and move it opposite to the mark chosen; and tighten it. The Nos. 32, 22, 16, etc., give the numbers of stitches to the inch. You can vary the stitch from the scale by setting thumb screw between numbers.

Remove Work. Raise the needle bar to its highest point, lift the presser foot, release the tension of the upper thread by pressing down the tension releaser, at the same time with the left hand draw the work from you and a little to the left. Cut the thread, leaving about four inches with which to commence sewing.

Adjust Presser Foot. At the top of the Machine, back of the needle bar, will be found a screw, which, by turning to the right, increases, and to the left, decreases the pressure of the presser foot. Heavy goods require more pressure than light goods. Too much pressure will pucker fine cloth, while too little pressure on heavy cloth will let presser foot rise as the needle ascends. Care should be taken to adjust the pressure correctly. All machines are properly adjusted for ordinary work, the screw should not be changed except on extra thick or thin goods.

Gauge Every machine has a Gauge. It is attached to the bed plate by means of the thumb screw, and used for enabling the operator to sew at a given distance from the edge of the goods.

To Hemstitch. Fold blotting paper (or other soft paper) which can be readily torn, until you get thickness corresponding to the opening desired in the hem-stitching; put one of the pieces of goods under the paper and the other above, then place all under the presser-foot,and sew through them. After being sewed, both pieces will be double. Fold back the cloth first on one side, then on the other, all in the same direction and hold firmly while you tear out the paper. Remove the other half of the paper and open the hem-stitching—one edge of each, or either piece may be cut and passed through the hemmer, or a row of stitching can be passed along side the hem-stitch, and the double edge finished off as you choose.

Remove Foot. Raise the needle bar to its highest point, loosen the binding nut which is just above the foot, by turning to the right, then draw the foot out.

TO SELECT NEEDLES AND THREAD.

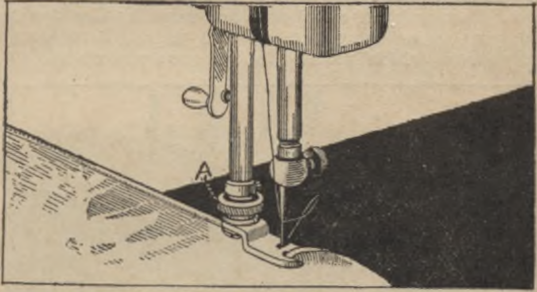
Size of Needle.	CLASS OF WORK TO SEW.	Size of Cotton, Linen or Silk.
O	Very Fine Thin Muslins, Cambrics, Linens, etc.	120 to 300 Cotton.
B	Very Fine Calicoes, Linens, Linen Shirtings, Fine Silk Goods, etc.	90 to 120 Cotton, & 000, 00 Silk Twist.
½	Shirtings, Sheetings, Bleached Calicoes, Muslins, Silks and General Domestic Goods, and all classes of General Work.	60 to 90 Cotton, 0 and 00 Silk Twist.
1	All kinds of Heavy Calicoes, Light Woolen Goods, Heavy Silks, Seaming, Stitching, etc.	40 to 60 Cotton, A and 0 Silk Twist.
2	Tickings, Woolen Goods, Trousers, Boy's Clothing, Corsets, Cloaks, Mantles, etc.	24 to 40 Cotton. A and 0 Silk Twist.
3	Heavy Woolens and Tickings, Bags, Heavy Coats, Trousers, and Heavy Clothing generally	10 to 24 Cotton, A and B Twist, and 60 to 80 Linen.
4	Bags, Coarse Cloths, Heavy Goods of any texture.	40 to 60 Linen, B C & D Silk Twist, or very Coarse Cotton.

For Needles O, B, 1-2 and 1, use throat plate with Small needle hole; for 2, 3, and 4 use throat plate with Large hole.

INSTRUCTIONS

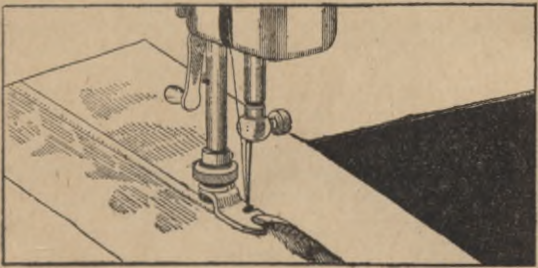
FOR USING THE

FOOT HEMMER AND FELLER.

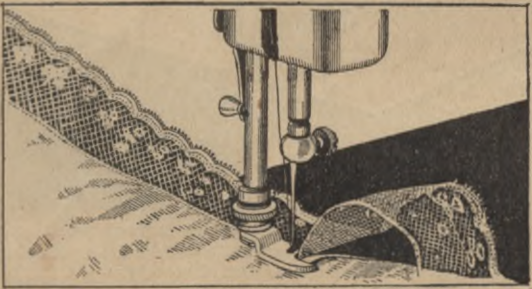


Hemming. Raise the needle to its highest point and raise the presser foot to its first lift by turning the lifter to the right. Loosen the nut A, take off the presser foot and replace with the Hemmer. Set same to its right place and fasten nut A by turning to the left. Raise the presser bar by turning the presser foot lifter to the right, and pass the edge of the cloth into the hemmer in the manner shown in the illustration, drawing it through the hemmer as far as the needle hole, in order that the feed may at once catch the cloth. Then let the hemmer down upon the feed surface.

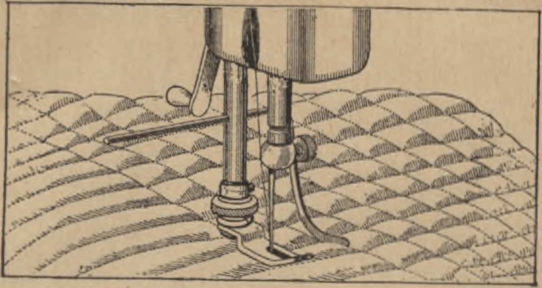
and operate the machine as usual. Hold the goods with the right hand, as shown in the illustration. Should the goods begin to run out of the hemmer, carry them to the Right; should too much run into the hemmer carry the goods to the Left. About one-fourth of an inch in width is as much of the goods as is usually required to form a perfect hem. If the stitch takes the hem too far from the edge, turn the hemmer a little to the right. If, on the contrary, the stitch does not catch the edge of the hem, turn the hemmer a little to the left.



Felling. Sew the two edges of the cloth together, the under one projecting one-fourth of an inch beyond the upper; then open out the work and crease the seam down, the wide edge over the narrow edge. Draw the wide-folded edge into the hemmer, the same as if it were a hem, and drop the foot. Then guide the fold edge, and work the machine the same as in ordinary hemming. A wider fell requires a wider seam, which is turned the same as a wider hem.

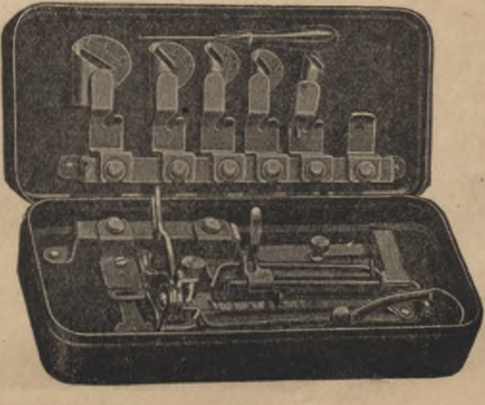


To Hem and Sew on Lace. Put the edge of the fabric into the hemmer. When the hem is well started, raise hemmer foot by means of the presser lifter and also raise the needle. Then pass the lace through slot in the side of hemmer, carrying it back under the hemmer on top of the hem. Proceed as in ordinary hemming, keeping lace well in the side.



Quilting. Insert the quilter through the small hole in the presser bar, and fasten with the screw in the back of presser bar, moving it to the right or left to the required width of the rows of stitching. Raise or lower the quilter according to the thickness of the goods. Having made the first row the desired distance from the edge place the work so that this row will be under and in line with the lower edge of the quilter, which will form a guide for each row of stitching; the last row made always passing under and in line with the quilter while stitching the next.

OUR LATEST SET OF ATTACHMENTS.

Instructions Furnished with Each Set.

With these various attachments a greater variety of work can be accomplished on this Sewing Machine than on others of its class.